

CLAIMS

1. A method of filtering a bitstream comprising elementary units having a time position, and first timing data indicative of said time positions,
said method using:
 - a syntactical description of said bitstream, said syntactical description comprising elements
5 describing said elementary units and containing said first timing data,
 - a semantic description of said bitstream, said semantic description comprising second timing data and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units,
 - at least a user specification,
- 10 said method comprising the steps of:
 - searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,
 - deriving time positions for said matching elementary units from said second timing data,
 - using said first timing data to locate in said syntactical description the elements corresponding to
15 said time positions,
 - generating a filtered syntactical description in which the located elements are removed,
 - generating a filtered bitstream from said filtered syntactical description.
- 20 2. A filtering method as claimed in claim 1, wherein said syntactical description is an XML document and said filtered syntactical description is generated by applying to said syntactical description a parametric transformation defined in an XSL style sheet having said time positions as input parameter.
- 25 3. A filtering method as claimed in claim 1, wherein said semantic description is compliant with the MPEG-7 standard, and said second timing data are contained in <MediaTime> elements.
4. A device for filtering a bitstream comprising elementary units having a time position, and first timing data indicative of said time positions, using:
 - a syntactical description of said bitstream, said syntactical description comprising elements
30 describing said elementary units and containing said first timing data,
 - a semantic description of said bitstream, said semantic description comprising second timing data and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units,
 - at least a user specification,

said device comprising means for:

- searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,
- deriving time positions for said matching elementary units from said second timing data,
- 5 - using said first timing data to locate in said syntactical description the elements corresponding to said time positions,
- generating a filtered syntactical description in which the located elements are removed,
- generating a filtered bitstream from said filtered syntactical description.

10 5. A transmission system comprising a server device, a transmission channel and a user device, said user device being intended to receive from said server device via said transmission channel:

- a bitstream comprising elementary units having a time position and first timing data indicative of said time positions, and

- a semantic description of said bitstream, said semantic description comprising second timing data

15 and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units,

said user device comprising means for:

- capturing at least a user specification,

- generating a syntactical description of said bitstream, said syntactical description comprising

20 elements describing said elementary units and containing said first timing data,

- searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,

- deriving time positions for said matching elementary units from said second timing data,

- using said first timing data to locate in said syntactical description the elements corresponding to

25 said time positions,

- generating a filtered syntactical description in which the located elements are removed,

- generating a filtered bitstream from said filtered syntactical description.

30 6. A transmission system comprising a server device, a transmission channel and a user device, said user device having means for sending a demand for a content to said server device via said

transmission channel, said demand including a user specification, and said server device having

means for filtering a bitstream corresponding to the demanded content according to said user

specification and for sending the filtered bitstream to said user device via said transmission channel,

wherein said bitstream:

35 - comprises elementary units having a time position and first timing data indicative of said time positions,

- is semantically described in a semantic description comprising second timing data and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units,
 - is syntactically described in a syntactical description comprising elements describing said
- 5 elementary units and containing said first timing data, and said means for filtering the bitstream that correspond to the demanded content comprise means for:
- searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,
 - deriving time positions for said matching elementary units from said second timing data,
 - using said first timing data to locate in said syntactical description the elements corresponding to said time positions,
 - generating a filtered syntactical description in which the located elements are removed,
 - generating a filtered bitstream from said filtered syntactical description.
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7. A program comprising instructions for implementing a method of filtering a bitstream as claimed in claim 1, when said program is executed by a processor.
 8. A filtered bitstream obtained by implementing a filtering method as claimed in claim 1 or 2.